

Work Order ID 83611

April-20-12 1:24:36 PM

03687-8  
B83611

\*83611\*

Page 1

Item ID: D3687-3

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Item Name: MOUNT

Stop \*NS2\*

Start Date: 20/04/2012 Start Qty: 4.00

\*4\*

Cust Item ID:

Required Date: 04/05/2012 Req'd Qty: 4.00

\*4\*

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 12/04/20

Tooling:

Date:

Run Start \*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D3687

Rev C

100

0.00

\*100\*

Outsource1

Memo

0.00

Outsource process - Heat Treat

Send M174B3937X4750 For heat treating  
to CONDITION H-900(to become M174PHH900B3937X4750)  
FTU IN EXCESS OF 190 KSI  
FTU IN EXCESS OF 170 KSI

CERTIFICATE IS REQUIRED

N/A

CZ 13/04/25

105

0.00

\*105\*

Outsource5

Memo

0.00

Outsource process - Machining

Issue P/O: 14829  
Machine as per Dwg D3687  
Possible Supplier: Globus Precision  
Conformity sheet required

4 12-0425

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 83611

**\*83611\***

Page 2

Item ID: D3687-3

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Item Name: MOUNT

Stop **\*NS2\***

Start Date: 20/04/2012 Start Qty: 4.00

**\*4\***

Cust Item ID:

Required Date: 04/05/2012 Req'd Qty: 4.00

**\*4\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110	Receive & Inspect for Damage & Mat'l Certs	0.00							
<b>*110*</b>									
Packaging	Memo	0.00							
Packaging	Ensure certificate of conformity is attached								
120	QC6- Inspect dimensions to drawing	0.00							
<b>*120*</b>									
QC	Memo	0.00							
Quality Control	DIMENSIONAL CHECK, ENSURE THAT BOLT HOLES ARE CORRECT SIZE								
122		0.00							
<b>*122*</b>									
Purchasing	Memo	0.00							
Purchasing	Issue P/O FOR LIQUID PENETRATION P/O #: <u>2218</u>								
	Certificate of conformity is required								

*Asp* (4)

4

Pho →

Q 13/11/22 (4)

*Order*

W/O: 83611		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

See Pink NCR 13332

Part No: D31687-3 PAR #: \_\_\_\_\_ Fault Category: Supplier NCR: Yes No DQA: dfn Date: 13/12/11  
 Resolution: RTV Disposition: RTV QA: N/C Closed: ck Date: 13/12/11

NCR: 133331		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
13-9-21	#120	Focus of inspection that the 0623 + 0.001 was not machined enough. measure 0.625-0.626". correct instal stabl anet Re seals	5 13/12/11	Zinfor Supplier and find out what happens please attach small cameras Refer to Archer RE Re work at x2	DAS 27 9-89 13/12/11 13/11/27	SWP	SWP	13/11/27
		RTV		Returned by ED during site visit. then 13/12/11				

NOTE: Date & initial all entries

# Work Order ID 83611

\*83611\*

Page 3

April-20-12 1:24:36 PM

Item ID: D3687-3

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Item Name: MOUNT

Stop \*NS2\*

Start Date: 20/04/2012 Start Qty: 4.00

\*4\*

Cust Item ID:

Required Date: 04/05/2012 Req'd Qty: 4.00

\*4\*

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
125	Receive & Inspect for Damage & Mat'l Certs	0.00							
<b>*125*</b>									
Packaging	Memo	0.00							
Packaging	ENSURE NDT RESULT IS ATTACH								
127		0.00							
<b>*127*</b>									
Small Fab	Memo	0.00							
Small Fab	CLEAN ALL PART FROM NDT TESTING RESIDUE								
128	QC5- Inspect part completeness to step on W/O	0.00							
<b>*128*</b>									
QC	Memo	0.00							
Quality Control									

68-8

27

DAS

13/11/27

43/11/22 (7)

FF  
4 13-11-27

4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 83611

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Page 4

April-20-12 1:24:36 PM

Item ID: D3687-3

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Setup Start

**\*NS1\***

Revision ID:

Item Name: MOUNT

Stop

**\*NS2\***

Start Date: 20/04/2012 Start Qty: 4.00

**\*4\***

Cust Item ID:

Required Date: 04/05/2012 Req'd Qty: 4.00

**\*4\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

Identify as per dwg & Stock Location: \_\_\_\_\_

0.00

**\*130\***

Packaging

Memo

0.00

Packaging

4x DAS 28 13-11-27 9-89

140

QC21- Final Inspection - Work Order Release

0.00

**\*140\***

QC

Memo

0.00

Quality Control

RF/Rm 13/12/04

PLB-12-4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

April-20-12 1:24:40 PM

Page 1 / 1

Work Order ID: 83611

\*83611\*

Parent Item: D3687-3

\*D3687-3\*

Parent Item Name: MOUNT

Start Date: 20/04/2012

Required Date: 04/05/2012

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A New Issue 08-01-15 JLM Verified By:EC  
 IPP Rev:B Added Contion H-900 JLM Verified By:DD IPP  
 REV:C ADDED QC6 10-09-09 JLM VERIFIED BY :DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M174PH-  
H900B3.937X4.750

Purchased

No

100

f

4.8700

0.3333

1.401368

✓

\*M174PH-H900B3 937X4 750\*

17-4SS Bar H900-3.937x4.750

\*\*

C212/04/25

Location

Loc Qty

Loc Code

MAT005

4.87

4.87

112374

D3687-3P

Purchased

No

105

Each

0.0000

1

4

\*D3687-3P\*

MOUNT

\*\*

1.401

12/9/21 (4)

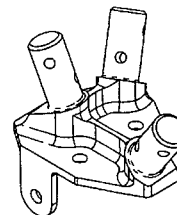
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

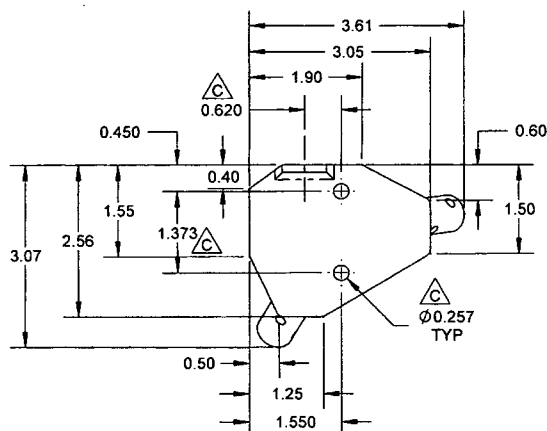
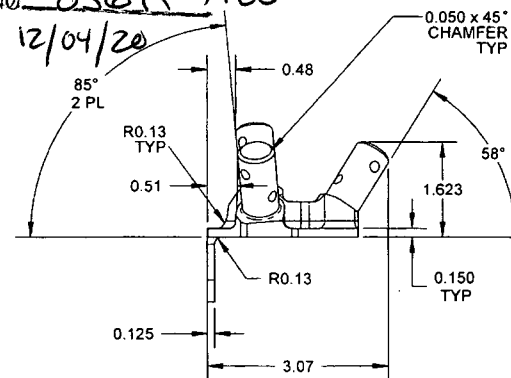
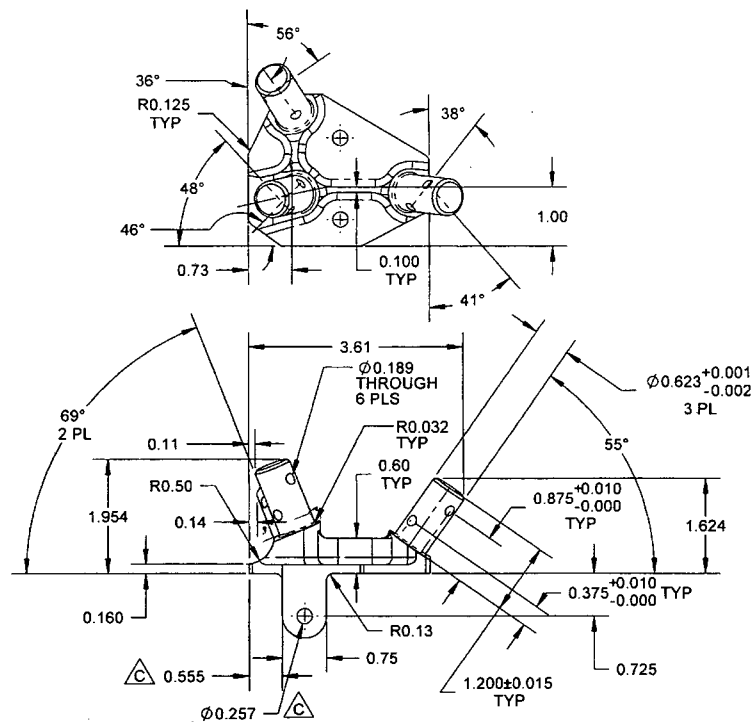
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 83611 MCL  
12/04/20



# D3687-1 MOUNT

- NOTES:  
 1) MATERIAL: 17-4PH SS BAR PER AMS 5643, H-900 CONDITION  
 2) FINISH: NONE  
 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED  
 4) UNITS: INCHES UNLESS OTHERWISE NOTED  
 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX  
 6) IDENTIFICATION: NONE  
 7) WEIGHT: 0.81 lb  
 8) LPI PER QSI 038 4.1.1 (ASTM E1417 LEVEL 2)

RELEASED  
2009-09-22

C	0.555 WAS 0.50 (ZN B8-1); 1.373 WAS 1.375 (ZN A8-1, A8-2); ADD 0.620 (ZN B7-1) PER NCR09-084; UPDATE NOTE 8 TO REF QSI (ZN A6-1, B3-2); Ø0.257 WAS Ø0.250 (ZN A6-1, B7-1, B7-2)	RF	09.08.26
B	CHANGE TO 17-4PH H-900 (ZN A6-1 & B3-2); R0.032 WAS R0.015 (ZN C7-1 & C7-2); REFORMATTED TO CURRENT DWG STANDARDS	RF	08.11.24
A	NEW ISSUE	RF	08.03.12
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. C
MFG. APPR.	<i>[Signature]</i>	D3687	SHEET 1 OF 2
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	MOUNT	NTS
DATE	09.08.26	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

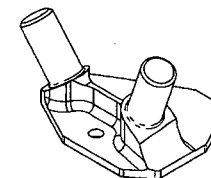
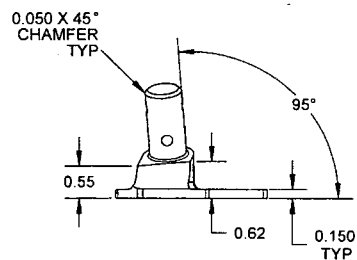
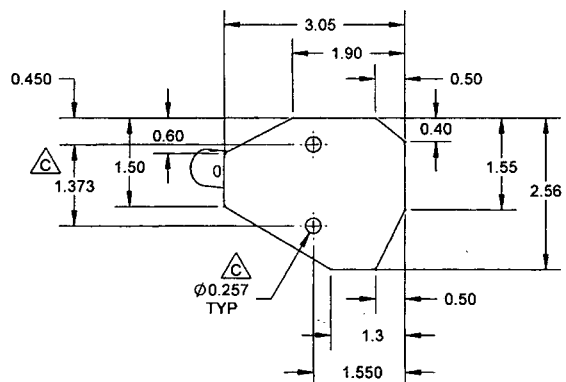
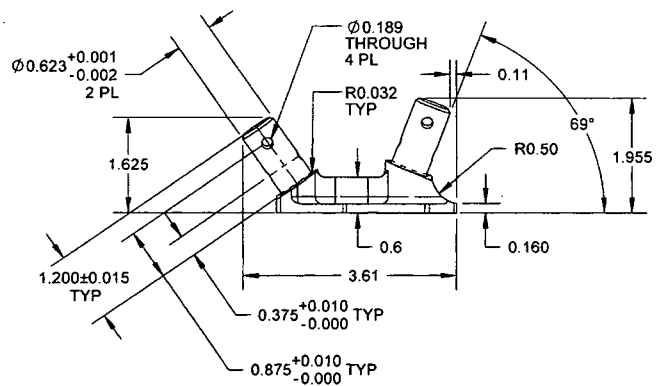
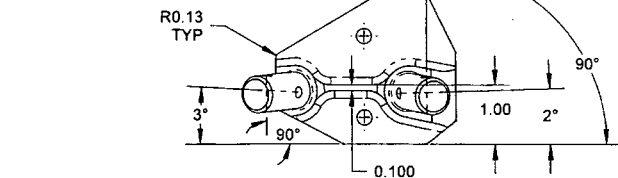
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# NOTES:

- 1) MATERIAL: 17-4PH SS BAR PER AMS 5643, H-900 CONDITION
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.64 lb
- 8) LPI PER QSI 038 4.1.1 (ASTM E1417 LEVEL 2)



**D3687-3 MOUNT**

**RELEASED**  
2009-09-22  
MD

DESIGN	RF	<b>DART AEROSPACE LTD</b>	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	RF	DRAWING NO.	REV. C
MFG. APPR.	<i>RF</i>	D3687	SHEET 2 OF 2
APPROVED	<i>RF</i>	TITLE	SCALE
DE APPR.	<i>H</i>	MOUNT	NTS
DATE	09.08.26	COPYRIGHT © 2008 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR DISSEMINATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



2228 Gladwin Cres.  
Ottawa, Ontario  
K1B 4S6

Telephone (613) 899-2405  
Fax (613) 226-1719

## Certificate of Compliance

To:  
Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury Ont.  
K6A 1K7

Po Number	Part Number	Quantities
16829	D3687-1P	1
16829	D3687-3P	4

It is hereby certified that all articles mentioned above are in conformance with the requirements, specification and drawings as listed on customer purchase order number, 16829 issued by Dart Aerospace Inc.

A handwritten signature in black ink, appearing to read 'Alex Mazerolle', is written over a horizontal line.

Alex Mazerolle  
President  
Archer Precision Inc.  
1393 Major Road,  
Orleans Ontario  
K1E 1H3



# Inspection Report

Customer Name	QTY	DWG #	REV.	Part Name	Date	Lot#	Job #
Dart Aerospace	4	D3687	C	Mount	ASAP		603

Page 1 of	Inspection Interval	Special Notes
-----------	---------------------	---------------

Item #	DWG. Dim	Tolerance	Operator	QA First Off	QA Final	2	3	4	5	6	7	8	9
			First Off	A	R	A	R						
	Rev	C	✓	✓		✓		✓	✓				
	MAT	17-4PH	✓	✓		✓		✓	✓				
	SUB	None	✓	✓		✓		✓	✓				
	Deburr	Yes	✓	✓		✓		✓	✓				
1	R0.13	±.030	PP	✓		✓		✓	✓				
2	3°	±.5°	PP	✓		✓		✓	✓				
3	90°	±.5°	PP	✓		✓		✓	✓				
4	0.100	±.010	.101	✓		✓		.100	.100	.100			
5	1.00	±.030	1.002	✓		✓		1.001	1.00	1.001			
6	2°	±.5°	PP	✓		✓		✓	✓				
7	90°	±.5°	PP	✓		✓		✓	✓				
8	Ø.623	+.001/- .002	.623	✓		✓		.6224	.623	.6233			
9	2PL	-	✓	✓		✓		✓	✓				
10	1.625	±.010	1.622	✓		✓		1.622	1.622	1.623			
11	1.200	±.015	1.200	✓		✓		1.200	1.200	1.200			
12	0.375	+0.010	.378	✓		✓		.378	.377	.378			
13	3.61	±.030	PP	✓		✓		✓	✓				
14	0.6	±.100	.599	✓		✓		.598	.599	.599			
15	0.160	±.010	.159	✓		✓		.159	.159	.159			
16	1.955	±.010	1.958	✓		✓		1.947	1.948	1.948			
17	R0.50	±.030	PP	✓		✓		✓	✓				
18	69°	±.5°	PP	✓		✓		✓	✓				
19	0.11	±.030	PP	✓		✓		✓	✓				
20	R0.032	±.010	PP	✓		✓		✓	✓				
21	4PL	-	✓	✓		✓		✓	✓				
22	Ø.189	+.005/- .001	.189	✓		✓		.188	.189	.189			



23	.050x45°	±.010	✓	✓	✓	✓	✓	✓
24	0.55	±.030	PP	✓	✓	-	-	-
25	0.62	±.030	PP	✓	✓	-	-	-
26	0.150	±.010	.151	✓	✓	.150	.150	.150
27	95°	±.5°	PP	✓	✓	-	-	-
28	0.450	±.010	PP	✓	✓	-	-	-
29	1.373	±.010	1.375	✓	✓	1.373	1.374	1.373
30	Ø0.257	+0.006/-0.001	.257	✓	✓	.257	.257	.257
31	1.550	±.010	PP	✓	✓	-	-	-
32	1.3	±.100	PP	✓	✓	-	-	-
33	0.50	±.030	PP	✓	✓	-	-	-
34	2.56	±.030	2.561	✓	✓	-	-	-
35	1.55	±.030	PP	✓	✓	-	-	-
36	0.40	±.030	PP	✓	✓	-	-	-
37	0.50	±.030	PP	✓	✓	-	-	-
38	1.90	±.030	PP	✓	✓	-	-	-
39	3.05	±.030	3.050	✓	✓	3.061	3.060	3.060
40	0.875	+0.010	.878	✓	✓	.878	.878	.878
41	1.50	±.030	PP	✓	✓	-	-	-
42	0.60	±.030	PP	✓	✓	-	-	-



**skyservice**  
Air travel. Evolved.

# NDT Work Order

Sky Service F.B.O. Inc.

DOT APP 53-89 / EASA 145.7142 / BDA AMO 385

WO #: YYZ

70254

Customer:

DART AEROSPACE

Dept: NDT YYZ

Reference:

P022168

Make:

Model:

Reg:

A/C S/N:

TSN:

CSN:

TSO:

Tail#:

Task: ☐ Scheduled ☐ Unscheduled ☐ A.O.G. ☒ P.T. ☐ M.T. ☐ E.T. ☐ U.T. ☐ R.T.

## Work Required:

CARRY OUT NDT ON THE FOLLOWING ITEMS:

- ① MOUNT ID D3687-3, WO 83611 QTY-4
- ② MOUNT ID D3687-1, WO 81748 QTY-4
- ③ MOUNT ID D3687-1, WO 83609 QTY-1
- ④ CROSSTUBE ID D412-664-105, WO'S 101997, 101996, 101998
- ⑤ CROSSTUBE ID D412-664-209, WO'S 101749, 109058, 109059

## Action Taken:

Date:

Initial/Stamp:

LIQUID PENETRANT INSPECTION CARRIED  
OUT ON ALL 15 ITEMS LISTED ABOVE

21 NOV 2013



NO CRACKS FOUND

PENETRANT - ARDROX 970P25E BATCH TPO1D484

BLACK LIGHT M 20189

I certified that the maintenance described above has been performed with the applicable standard of airworthiness.

Signature:

Name: GARY SMITH

ACA/SCA Stamp



Date:

21 NOV 2013